DOCUMENT RESUME

ED 419 155 CE 076 452

AUTHOR Norton, Robert E.
TITLE Quality Instruction for the High Performance Workplace: DACUM.
PUB DATE 1998-00-00
NOTE 7p.
PUB TYPE Opinion Papers (120) -- Reports - Descriptive (141)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Educational Needs; Employment Opportunities; *Job Analysis; *Job Skills; *Job Training; *Occupational Information; Workshops
IDENTIFIERS *DACUM Process

ABSTRACT

DACUM (Developing a Curriculum) is a method of job or occupational analysis that involves a 2-day workshop in which a trained DACUM facilitator and a committee of 5-12 expert workers from the position, occupation, or other area of analysis create a profile chart that is a detailed and graphic portrayal of the duties and tasks performed by the workers involved. In addition to the development of precise duty and task statements, lists of the general knowledge and skills, worker behaviors, tools, and equipment, and future job trends are also identified. DACUM is based on three premises: (1) expert workers can describe and define their job or occupations more accurately than anyone else; (2) an effective way to define a job or occupation is to describe precisely the tasks that expert workers perform; and (3) all tasks, in order to be performed correctly, demand the use of certain knowledge, skills, tools, and positive worker behaviors. DACUM has been used effectively to analyze occupations at the professional, managerial, technical, skilled, and semi-skilled level, and to conceptualize future jobs. The quality of the product obtained and the superior process used are two of the many important advantages of the DACUM analysis. The DACUM methodology is used widely in the United States, Canada, and many other countries because it is highly effective, quick, and low cost. (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 419 155

Quality Instruction for the High Performance Workplace: DACUM

Robert E. Norton
Senior Research Specialist
Center on Education and Training for Employment
The Ohio State University
1900 Kenny Road
Columbus, OH 43210
USA
Business Phone: 614-292-8481
Fax: 614-292-1260
E-mail: norton.1@osu.edu

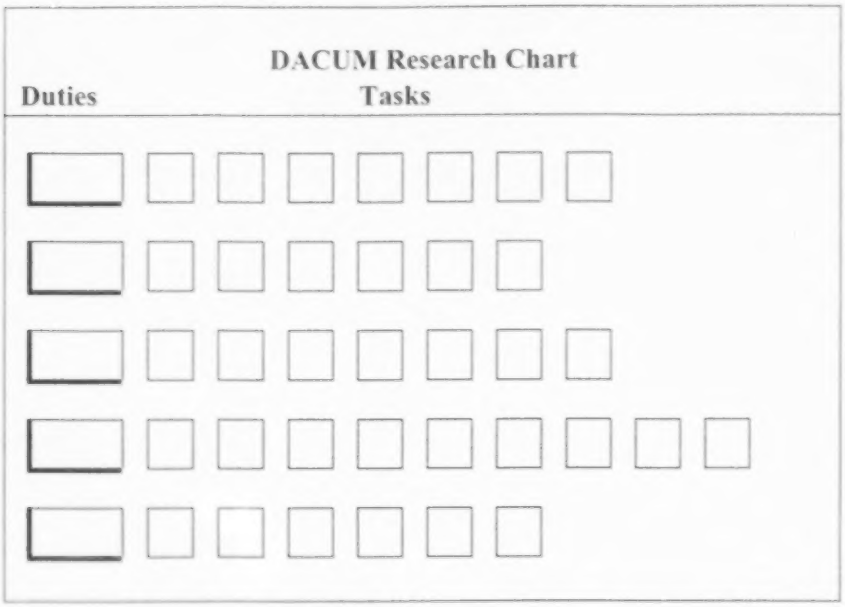
U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
R E Norton
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CE076452

Quality Instruction for the High Performance Workplace: DACUM

DACUM is an acronym for **Developing A Curriculum**. DACUM as used widely today is a unique, innovative, and very effective method of job, and/or occupational analysis. It is also very effective for conducting system and process analyses. The DACUM analysis workshop involves a **trained DACUM facilitator** and a **committee of 5-12 expert workers** from the position, occupation, or other area of analysis. The profile chart that results from the usual two-day workshop is a **detailed and graphic portrayal of the duties and tasks** performed by the workers involved.



In addition to the development of precise duty and task statements, lists of the general knowledge and skills, worker behaviors, tools/equipment/materials/supplies, and future job trends/concerns are also identified.

DACUM is based on three logical premises:

1. **Expert workers can describe and define their job/occupation more accurately than anyone else**. Persons who are working full-time in their positions are the real experts on that job. Even though supervisors and managers usually know a lot about their subordinates work, they usually lack the expertise needed for a high quality analysis.

2. **An effective way to define a job/occupation is to precisely describe the tasks that expert workers perform**. A successful worker performs a variety of tasks that either the

customer or employer wants performed. Possessing positive attitudes and knowledge alone are not enough. Hence, finding out what the expert workers (top performers) do will give us the opportunity to prepare other experts.

3. **All tasks, in order to be performed correctly demand the use of certain knowledge, skills, tools, and positive worker behaviors**. While the knowledge, skills, tools, and worker behaviors are not tasks, they are **enablers** which make it possible for the worker to be successful. Because these four enablers are so important, considerable attention is given during the DACUM workshop to identifying lists of each. Because these attributes are different and distinct from the tasks, it is very important to keep them separate if a high quality analysis of job performance requirements is to be obtained.

DACUM has been used very effectively to analyze occupations at the **professional**, **managerial**, **technical**, **skilled**, and **semi-skilled** levels. It has also been used effectively to conceptualize future jobs, and to analyze portions (selected duties) of one's occupation. Recently, with the increasing emphasis on quality brought forth by the TQM (Total Quality Management), ISO 9000, and QS 9000 movements, DACUM also has been used widely as a basis or foundation for analyzing various industrial systems and processes.

There are many reasons for using the DACUM process. The success of any company or organization is always affected by the quality of its employees. To produce and maintain a highly skilled workforce, schools, colleges, and companies must offer the highest quality of education and training possible to prepare present and future employees for the challenges they face.

Accurate and specific job information is essential to good decision-making in all areas of human resource development and management. All of the approaches to quality improvement and management--TQM, ISO 9000, QS 9000, etc. require participating companies to secure and utilize precise and detailed information about their workers roles and responsibilities--work processes, systems, duties, and tasks. **Job/occupational analysis** is the best method available for collecting that type of information. And DACUM is the best means of conducting job/occupational analysis that is available.

Why is DACUM the best method? The excellent quality of the **product** obtained (results) and the superior **process** used (committee of 5-12 expert workers interacting) are but two of the many important advantages.

The DACUM methodology is widely used in the United States, Canada, and many other countries simply because it is:

- Highly effective
- Quick
- Low cost

Another reason why DACUM is extensively used by educators and by trainers when they are establishing a new education or training program or revising an existing one is that they must somehow carefully answer the question of: **WHAT SHOULD BE TAUGHT**?

All too often there is a big gap between what is offered to learners in the classroom/lab and what is going on in the real world of work. This **very serious gap** between what is offered and what is needed is caused by what the writer has referred to as the "**Curriculum What Errors**." These errors can be stated in many ways but may be summarized as twofold:

1. Failure to teach **what** should be taught (the latest concepts, methods, skills, techniques)
2. Teaching **what** should not be taught (the outdated concepts, processes, technology, information)

These **what errors** are very serious and very costly. They, in reality, cheat the learner, the taxpayers, and the companies. DACUM is an effective, quick, and low cost process for significantly reducing these errors.

The very powerful combination of being effective, quick, and low cost has made the DACUM process very attractive to many schools, colleges, companies, and government agencies.

Another important reason for using DACUM has been and continues to be the strong desire of many trainers and educators to establish a relevant, up-to-date, and localized research base for curriculum and instructional development. Clearly, for **educators** a curriculum base that is soundly determined with maximum input from the businesses who are going to employ the students is needed. For **business trainers** and developers, a curriculum base is needed that is specific to the companies needs and that has been developed in such a way as to obtain strong employee buy-in.

To permit any company or educational agency to identify its own localized research base for curriculum development, an alternative to traditional, time-consuming, and costly approaches to job/occupational analysis was needed. DACUM has become that powerful alternative!

Once employers understand what is to be done via DACUM and how the results will be used, it is a rare employer who will refuse to cooperate. Instead, many colleges who have used DACUM report such reactions as the following:

- Offers of equipment (loans and gifts) and supplies
- Offers to host field trips
- Willingness to provide subject matter experts
- Offers of supportive training materials
- Offers of resource persons to help teach in emerging technology areas
- Requests for inservice training programs to meet local industry needs
- Increased enrollments in adult upgrading programs

- Increased support of the educational institution in a variety of ways by local business, industry, labor, and management

While the public relations value of DACUM is secondary to its main purpose, its significant, long-term impact is too important to overlook or lightly dismiss. Linkages can be developed which, if properly nurtured can be long lasting and extremely beneficial.

Business needs to design new training programs quickly and effectively. The skills and competencies needed must be job or process specific, if they are to meet the company's production and quality goals. Business needs highly job-relevant training and they must reduce the start-up time and cost for the design and delivery of programs. As one company reported, they cannot afford to spend 30 or more days on an occupational analysis if a two-day DACUM workshop can do the same job better and much cheaper.

Who Uses DACUM?

DACUM is used by:

- **Educational agencies** such as state departments of education, community and technical colleges and institutes, proprietary schools/colleges, colleges of education and universities, and secondary schools.

A list of some of the educational agencies served by the Center on Education and Training for Employment, College of Education, The Ohio State University (hereinafter referred to as CETE) follows.

Selected Educational Agencies Served

DACUM-related services have been provided to a large number of agencies, either by contract or through participation in Center-sponsored DACUM Training Institutes. Client agencies have included secondary, postsecondary, and higher education institutions, state educational agencies, and federal education and manpower agencies, both domestic and foreign. Following is a partial listing:

Arizona Center for Vocational Ed
Arkansas Dept of Ed
Asian Pacific Skill Development Program
Brevard Community College
Caldwell Community College
Carl Sandburg Collge
Catonsville Community College
Central Arizona College
Central Virginia Community College
Chesapeake College
Clark County Community College
Columbus State Community College
Dallas County Community College
Delaware Department of Public Instruction
Department of Education, Virgin Islands
DeVry, Incorporated

Dundalk Community College
Dyersburg State Community College
Education Management Corp
Elgin Community College
Ferris State University
Florida Department of Education
Fox Valley Technical College
Grant MacEwan Community College
Houston Community College
Illinois State University
Indiana State University
Indiana Vocational-Technical College
Kellogg Community College
Kirkwood Community College
Longview Community College
Madison Area Technical College
Maine Bureau of Vocational Education
Memphis City Schools
Mercer County Community College
Milwaukee Area Technical College
North Central Technical Institute
N. Iowa Area Community College
Northern Illinois University
Northern Maine Technical College
Ohio University
Ohio Department of Education
Renton Vocational Technical Institute
San Antonio Community College
San Luis Coastal Unified School District
Seattle Central Community College
St. Clair College of Applied Arts
Stanly Community College
Texas Community College Coordinating Board
University of Central Florida
University of Missouri-Columbia
Valencia Community College
Virginia Department of Education
Vocational and Industrial Training Board
York Technical College
Walla Walla Community College

- **Business and Industry** to do all kinds of human resource development and quality management decision-making. Many businesses and industries (hereinafter referred to as businesses) are using DACUM for job and occupational analysis as a basis for training program development, job descriptions, career development, job restructuring, etc. Recently a number of companies have been very successfully using the method with some adaptation to analyze job processes and systems rather than for the more common identification of duties and tasks.

Selected Business Clients

AT&T
American Electric Power
Arthur Anderson
Ashland Chemical
Blue Cross/Blue Shield
Boeing
Champion Internat'l
Control Data
Defense Supply
Centers
Discover Card
Dofasco, Inc.
Eastman Kodak
Ericsson, Inc.
General Motors
General Electric
John Deere
Kroger
Lubrizol
Lucent Technologies
Mennen
Monsanto Chemical
Motorola, Inc.
Navistar International
Newport News
Shipbuilding
Roadway
UAW-Ford
United Airlines
Unilever
Virginia Power
Westinghouse